

WEATHER ON THE ATLANTIC AND PACIFIC OCEANS

[The Marine Division, I. R. TANNERHILL in charge]

NORTH ATLANTIC OCEAN, OCTOBER 1938

By H. C. HUNTER

Atmospheric pressure.—The pressure averaged decidedly less than normal over the north-central and northeastern portions of the North Atlantic. At Reykjavik, Iceland, the monthly average was almost half an inch below normal, and even the highest reading reported there was slightly below the month's normal. The southeastern North Atlantic had pressures moderately above the normal, the departure at Horta, in the Azores, being +0.13 inch, and the lowest reading being but a trifle below the month's normal. Near the Maritime Provinces, Newfoundland, and southern Labrador, the pressure averaged slightly more than normal, and near Bermuda and the central West Indies slightly less.

During the first week and for most of the period after the 20th both the Icelandic low and the Azores high were much more intense than usual.

The extremes of pressure found in vessel reports at hand are 30.61 and 28.33 inches. The higher mark was noted on the Norwegian motorship *Europe*, during the forenoon of the 3d, when the vessel was near 38° north latitude, 36° west longitude, or slightly to westward of the westernmost Azores. The low reading was recorded on the American liner *American Shipper*, also on the 3d, but early in the afternoon, at about 55° N., 15° W. There was a slightly lower reading at the Reykjavik station on the 24th, as table 1 shows.

TABLE 1.—Averages, departures, and extremes of atmospheric pressure (sea level) at selected stations for the North Atlantic Ocean and its shores, October 1938.

Station	Average pressure	Departure	High-est	Date	Low-est	Date
	<i>Inches</i>	<i>Inch</i>	<i>Inches</i>		<i>Inches</i>	
Julianeabab, Greenland.....	29.49	-0.25	29.96	15	28.82	26
Reykjavik, Iceland.....	29.21	-.47	29.65	11	28.32	24
Lerwick, Shetland Islands.....	29.48	-.31	30.03	20	28.38	4
Valencia, Ireland.....	29.85	-.06	30.21	27	29.06	3
Lisbon, Portugal.....	30.12	+.10	30.28	4	29.71	24
Madeira.....	30.08	+.09	30.27	2	29.80	24
Horta, Azores.....	30.24	+.13	30.44	22	30.10	16
Belle Isle, Newfoundland.....	29.50	+.04	30.40	31	29.02	25
Halifax, Nova Scotia.....	30.06	+.02	30.50	3	29.28	25
Nantucket.....	30.05	.00	30.40	23	29.33	24
Hatteras.....	30.06	.00	30.39	11	29.53	24
Bermuda.....	29.99	-.08	30.24	12	29.72	28
Turks Island.....	29.92	-.03	30.03	23	29.77	28
Key West.....	29.94	.00	30.14	9	29.70	14
New Orleans.....	30.06	+.03	30.28	9	29.60	23

NOTE.—All data based on a. m. observations only, with departures compiled from best available normals related to time of observation, except Hatteras, Key West, Nantucket, and New Orleans, which are 24-hour corrected means.

Cyclones and gales.—During the first days of October there was a weak cyclone not far to eastward of the coast of the South Atlantic States; it moved generally in a northeasterly direction and about the 5th merged with the southern part of a far-northern, low-pressure area. Much more important on these days was the vast system of low pressure affecting the northeastern part of the ocean, an especially intense low being near Iceland and the British Isles on the 3d and 4th. Along the chief steamship routes to northwestern Europe at this time

many vessels met strong gales to northward of the 45th parallel and to eastward of mid-ocean; and two liners not far to the westward of Ireland—the *American Shipper* and the German *Berlin*—each of them, when north of the 52d parallel, encountered force-12 winds—the only instances found in the month's reports from the Atlantic.

A cyclone of no great strength when near Bermuda on the 7th and 8th developed very rapidly as it traveled northeastward on the 9th and 10th, being near Newfoundland during the intervening night. Strong to whole gales were reported by many vessels. Chart IX presents the situation on the 9th. This storm continued northeastward so that by the 13th it was too far to northward to affect vessels on the main shipping lanes.

A low that crossed the Gulf of St. Lawrence, moving eastward, on the 17th, became quite intense by the 19th, when centered near 55° N., 30° W., and one vessel near mid-ocean, close to the 48th parallel, met force-11 winds, the only instance after the 6th of the month of a force exceeding 10 in the Atlantic. By the 20th the low was centered far to the northward, with decreased energy.

Cyclones of low latitudes.—Elsewhere in this issue is an account of three disturbances that affected lower North Atlantic latitudes during the second and the first half of the third decades. Chart X shows the tracks of these low areas, the first and second taking quite unusual paths, generally with small progressive motion. Except the third low, after it had moved to northward of the 33d parallel, none of these storms attained more than moderate intensity.

The first disturbance originated near Tela, Honduras, spent 4 days or more over the eastern Gulf of Mexico, then turned northwestward to cross the Texas coast on the 17th. The table of ocean gales and storms presents some reports connected with this low, none of them showing wind force exceeding 8.

The second disturbance, noted first near Bermuda, was not far from the east Florida coast on the 19th and 20th, then turned northeastward to merge with a northern low.

The third disturbance was central not far from Tampico on the evening of the 22d. Traveling rapidly over western, central, and northeastern parts of the Gulf of Mexico, then across northern Florida, it was near the South Carolina coast early on the 24th. It then advanced northeastward near the coast line and merged with a low to the northward, reaching the Gulf of St. Lawrence with a marked increase in strength by the following morning.

Fog.—The usual decrease in foggiess from September is indicated by October reports at hand. Save near the United States coast, approximately from Cape Cod to Cape Hatteras, and over a small part of the Grand Banks area, there was less fog than during September.

To southeastward of New England and Nova Scotia there was distinctly less fog than past October averages indicate, while to eastward of New Jersey and Delaware Bay there was more, but all of it was noted after the 13th. The 5° square, 35° to 40° N., 70° to 75° W., had fog on 9 days, while the maximum foggiess reported in the North Atlantic was in the 5° square from 40° to 45° N., 45° to 50° W., with 10 days.